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C O N F I D E N T I A L SECTION 01 OF 05 BUDAPEST 000338

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SUBJECT: HUNGARIAN PARLIAMENT APPROVES NEXT STEP TOWARD  
NUCLEAR POWER EXPANSION

REF: 08 BUDAPEST 1227

Classified By:

Acting P/E Counselor Jon Martinson, reason 1.4 (b),(d)

¶1. (C) Summary: Hungary's Parliament recently approved the next step towards the eventual expansion of nuclear energy in Hungary. A feasibility study and tender offer will soon be underway for the probable addition of two new 1000MW reactors at the Paks nuclear plant at a total cost of about five billion euro (\$6.5 billion). At least one US company, probably Westinghouse, will likely be invited to participate, but most observers expect a Russian firm to win the bid. There is strong political consensus behind nuclear power expansion, but skeptics emphasize the enormous costs and risks of nuclear power, both from economic and environmental standpoints. They believe such a project is impossible without extensive public financial support, unlikely given Hungary's economic and fiscal woes. Given the risk of overcapacity in Hungary's electricity generation, the expansion of nuclear power may only make sense in the context of a regionally-integrated market for electricity. End summary.

GOH LONG ON PROMISE OF NEW NUCLEAR POWER, SHORT ON DETAILS

¶2. (SBU) The Hungarian Parliament, in a rare show of cross-party consensus, on March 30 approved by a nearly unanimous vote a measure granting preliminary approval to start preparations for the expansion of Hungary's nuclear energy sector. This latest move marks the next step in a process Parliament initiated a year ago when it requested that the GoH explore the possibility of constructing new nuclear reactors for power generation (reftel). According to Tamas Zarandy, a senior official at the Ministry of Transportation, Telecommunication, and Energy, the Parliament's approval gives a green light to begin a feasibility study on the construction of new reactors. Most observers expect the new reactors to be built at the Paks site, where four reactors currently provide roughly 35-40 percent of Hungary's electricity, and where space already exists for two additional reactors. The existing reactors are currently undergoing capacity upgrades from 440MW to 500MW per reactor and plans are underway to extend their operability by 20 years to 2032-2037.

¶3. (SBU) Hungary currently possesses just over 9000MW of

electricity generation capacity. Experts project that by 2025-2030 it will require 5000-8000MW of new capacity to replace outmoded plants and to satisfy forecasted demand growth. Advocates for expanding Hungary's nuclear sector emphasize that nuclear energy presents a cheap, emission-free power source to replace older conventional generating capacity and meet new demand, while complying with rigorous targets for cutting CO<sub>2</sub> emissions. Based on costs of generation, waste management, and decommissioning amounting to only about 10 forint/kWh (roughly \$0.04), about half the cost of gas-fired power generation, Paks is currently the most cost-efficient electricity producer in Hungary.

¶14. (SBU) Supporters also couch their arguments in terms of energy supply security and diversification. Although steps to expand the plant were already underway, the January gas cutoff focused policymakers' minds and added impetus to a project that could reduce Hungary's significant dependence on Russian-supplied gas. Gas-fired plants currently provide about 40 percent of the country's electricity and this figure is likely to rise as new generating capacity is increasingly based on natural gas.

¶15. (C) Details on the timing and scale of the expansion, the number and size of the new reactors, anticipated costs, and financing are still vague. We continue to receive scattered information from various officials, but most signs seem to point toward a tender process beginning later this year for two reactors that appear likely to come from Russia.

-- (Then) PM Gyurcsany, in a mid-February speech before

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Parliament, announced plans to double the capacity at the Paks plant, based partly on the need to reduce dependence on Russian-supplied gas following the January gas cut-off. This would imply a need for two 1000MW reactors.

-- During a recent tour of the Paks plant, the plant manager told the Embassy's Air Attaché that authorization had been granted to initiate a tender process for two 1000MW units and that bids would be considered based on the Russian, French, and Westinghouse/Mitsubishi designs. The plant manager expects the Russian design to prevail based on Hungary's experience with it at Paks and its proven track record, whereas he contends the Westinghouse model is still a prototype and the Hungarians do not want to be "guinea pigs" for unproven technology. He indicated that the French 1600MW design is an unlikely candidate because it exceeds Hungary's capacity needs.

-- Attila Mesterhazy, parliamentary caucus leader for the Socialist party, several weeks ago told the Pol/Econ Counselor that the tender offer would be announced "soon" and that, while a Russian firm would probably have an advantage based on the fact that the existing Paks reactors use Russian technology, he hoped potential US suppliers would be given due consideration.

-- Paks Nuclear Plant spokesman Istvan Mittler told the Embassy's Commercial Section in early April that bids under the tender will be solicited by invitation only, and at least one U.S. company, probably Westinghouse, will be invited to submit a bid.

-- According to Mr. Zarandy at the Energy Ministry, however, the parliamentary decree intentionally leaves open the questions of how many blocks, what capacities, and when they would be built. Depending on projected regional energy supply and demand dynamics, he expects Hungary to opt for one or two third-generation pressurized water reactors delivering between 1000-1600MW. In his view, a winning bid would probably need to include a demonstrable impact on local employment as well as an offer for waste removal, obviating the need to construct expensive waste management facilities.

¶6. (SBU) State-owned electricity giant MVM, which owns the Paks plant, will probably organize the tender upon completion of initial demand forecasts. According to Mittler, however, MVM is still working to allocate tasks related to the tender and probably will not be ready to move forward until sometime this fall. Most officials expect construction to begin around 2014, following a two-year feasibility and tender selection process and a three-year planning and design phase.

An expected six-year construction would enable the commissioning of the new reactors by 2020, but Zarandy concedes that these forecasts could be delayed by a few years due to the adverse financial climate.

¶7. (SBU) According to official estimates, each 1000MW reactor would cost roughly 2.5 billion euro (\$3.2 billion). Zarandy foresees the expansion project being undertaken by a joint corporation with the Hungarian state as ultimate majority owner. The state would most likely hold its share in the project through MVM, Hungary's state-owned electricity giant. According to Zarandy, MVM would probably be responsible for raising bank financing for the expansion as there are currently no plans for direct financial support from the state.

#### AN ENSEMBLE OF SKEPTICS CONFRONTS A CHORUS OF SUPPORT

¶8. (SBU) A number of experts outside the government, however, raise important questions about the timing and rationale for expanding Hungary's nuclear plant. Peter Kaderjak, Director of the Regional Center for Energy Policy Research and former head of the Hungarian Energy Office, sees the latest flurry of activity surrounding nuclear power as a diversionary tactic by an unpopular government faced with a financial crisis and the need to implement austerity measures. Given these realities, he is skeptical that the

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project will get past the planning stage, especially given Hungary's current financial straits. Kaderjak believes nuclear energy makes good sense for Hungary in the long run but stresses that the private sector should undertake the investment on a competitive basis. An MVM-financed project is essentially the same as a state-financed project, and the GoH's current approach toward nuclear energy crowds out the private sector.

¶9. (SBU) Ada Amon, Director of Energia Klub, an energy and environmental think tank and advocacy NGO, considers it "nonsense to launch such a project at the start of a financial crisis." She and Kaderjak point out that, on top of the five billion euro pricetag for the reactors, the project would require an extensive upgrade of the country's high-voltage lines as well as an equivalent capacity in conventional--probably gas-fired--plants to ensure system balance in the event that one or both reactors have to be shut down. According to Amon, this could more than double the cost of the project and significantly increase electricity rates. She believes it will not be possible to finance a project of this scale without state guarantees and interventions, which she claims are illegal under EU competition law. In her estimation, the inherent costs and risks, both economic and environmental, make nuclear plants unviable as private sector projects.

¶10. (SBU) Balazs Felsmann, a local energy consultant and former State Secretary at the Ministry of Transport, Telecommunication and Energy, recently published a study to debunk what he calls "the myth of cheap nuclear energy." He claims that nuclear power is currently inexpensive in Hungary only because the plant that produces it is a fully depreciated, debt-free asset. Even under the most optimistic assumptions regarding cost of capital, financing availability, electricity demand, construction delays and cost overruns, his model shows that the price of the power generated would increase by about 50 percent over current Paks prices, and that the present value of the income from

the new reactors over a 30-year lifespan would be less than the upfront equity investment in the project, making it an economically unviable project for the private sector. Incorporating more realistic assumptions of a market-based rate of return and, based on a broad sample of past projects, probable project delays and cost overruns yields an electricity price roughly 80 percent above the current Paks price. The cost of additional reserve capacity, waste management, and potential environmental problems would come on top of this. He also references studies by MIT and the University of Chicago that estimate nuclear power costs to be at least 20 percent higher than gas-based electricity and as much as 90 percent higher than coal-based. He echoes Amon's claim that, due to the costs and the risks, international experience shows very few nuclear projects being undertaken by the private sector, adding that the US has not undertaken a new project since 1978, and he questions the GoH's ability to finance such a project.

¶11. (C) All of our interlocutors express concern that the GoH is rushing into this project without a serious debate on its merits while a strong lobby for Paks expansion dominates public discourse and drowns out counterarguments. Felsmann commented to Econoff that the latest parliamentary vote was "on the basis of a one-page study" and highlighted in his analysis that the GoH's current timetable contradicts its 2008 plans to pursue the new reactors as a replacement for the existing ones when they are decommissioned beginning in ¶2032. (Comment: This apparent absence of a coherent strategy on nuclear expansion is also evident in the Paks plant manager's inability to answer our Air Attaché's question as to whether the new units would be intended to replace the old Paks reactors or to meet growing electricity demand. End comment.) A recent editorial in the local press casts Parliament's "green light" as more of a "blank check" since it passed the resolution without requesting a cost breakdown from the Energy Ministry and it will have no further opportunities to vote for or against the project.

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¶12. (SBU) Numerous skeptics also highlight that, given the likelihood that a Russian firm would build the new reactors, Hungary would only be substituting one form of Russian dependence (gas) for another (nuclear fuel). Furthermore, despite nuclear's credentials as a zero-emission energy source, it is not renewable. If the much-touted "nuclear renaissance" becomes a reality, increased uranium demand and prices will further alter the project's economics.

¶13. (SBU) Energia Klub's Amon suggests that corrupt connections between MVM/Paks and the political parties could explain the strong political consensus for Paks expansion. According to Amon, Paks is a well-known "playground of party financing." Skeptics also point to a recent scandal detailed in the Hungarian press in which MVM was funneling tens of millions of dollars to shady offshore companies to suggest that the entire political elite may be compromised.

#### HOW MUCH POWER DOES HUNGARY NEED?

¶14. (SBU) Kaderjak is also concerned that Hungary may already face a risk of overcapacity in electricity generation, given several large gas-based projects expected to come on line in the next few years. According to Kaderjak, the demand projections used to justify the new reactors are based on forecasts that MAVIR, the Hungarian electricity transmission operator and a wholly-owned subsidiary of MVM, prepares every few years for the sake of ensuring supply security and which, for this reason, tend to err on the upside. Furthermore, the projections have not been adjusted to take account of the drop in demand as a result of the economic downturn. According to the Energy Ministry's Dr. Zarandy, demand has fallen by 6-7 percent since November.

¶15. (SBU) The baseload from the existing Paks reactors already roughly covers Hungary's entire electricity need during off-peak hours. According to Ms. Amon, the current system cannot accommodate an additional 2000MW. Moreover, new reactors are likely to crowd out further development of wind power, a potentially significant source of renewable energy for Hungary. Since the nuclear plant's output cannot be easily regulated, conventional producers bear the burden of adjustment in order to maintain system balance.

Meanwhile, the Hungarian Energy Office has capped wind power generation at 330MW due to the difficulty of predicting wind patterns and the resulting risk to the electrical system from potential variations in electricity generation. (Note: Kaderjak agrees that nuclear expansion would create problems for wind power, but notes that other European countries have prioritized wind energy development and made necessary upgrades to their power grids to accommodate its variability. End note.)

¶16. (SBU) Dr. Zarandy points out that third-generation reactors would allow more flexibility to regulate output, but he agrees that expanding Hungarian nuclear power only makes sense in the context of a regional electricity market. Hungarian demand on its own does not justify such a large baseload capacity, but an expanded Hungarian nuclear plant that supplies electricity to Austria, Romania, and the Balkans could make sense given these countries' more flexible, hydro power-based electricity generation systems. According to Zarandy, Scandanavia's NordPool provides a good example of such regional cooperation, where Norway's hydro plants complement Sweden's and Finland's nuclear capacities to provide electricity to a regional market. He concedes, though, that strengthening physical interconnections among the national grids will probably be much easier than overcoming the significant barriers--arising from competing commercial interests, regulatory institutions, and historical grievances--to such cooperation. (Comment: This is not to mention the probable political obstacles to selling nuclear-generated electricity to avowedly anti-nuclear Austria. End comment.)

#### NEW REACTORS: WHITE KNIGHT OR WHITE ELEPHANT?

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¶17. (C) Comment: The Hungarians clearly have much to discuss when it comes to the question of expanding nuclear power, but unlike so many issues here where the lack of consensus and desire to score political points results in a "dialogue of the deaf," the apparent political unity on the nuclear issue seems likely to be a monologue bypassing serious debate. New nuclear reactors could constitute an important piece of a balanced, regionally-focused electricity strategy that includes conventional generation, further development of renewable energy sources and improved energy efficiency. This is particularly true in light of Hungary's EU commitment to meet 13 percent of its primary energy needs from renewables by 2020, compared with 4.9 percent in 2007. Furthermore, the economics of gas-fired generation are changing rapidly in Hungary, notwithstanding the problem of excessive dependence on Russian gas, as the power plants to be constructed in the coming years will be nearly twice as efficient as the ones they are replacing. To the extent that a sound analysis of the array of foregoing economic considerations drives a decision to move forward on constructing new reactors, even with some degree of government support, they could enhance Hungary's long-term energy security. Absent that, however, they are likely to be a costly, government-subsidized drag on Hungary's energy sector and economic development. Nonetheless, we will stay tuned for potential opportunities for U.S. companies to participate in any tenders related to nuclear energy. End comment.

Levine